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CLOSURE, OBSERVATION AND COUPLING: ON NARRATIVE AND AUTOPOIESIS

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In his *Introduction to Systems Theory*, Niklas Luhmann recounts a conversation in which Humberto Maturana explained to him how he hit on the term *autopoiesis* for his theory of self-reproducing systems. A philosopher colleague had been explaining to him Aristotle's distinction between *praxis* (an action that is self-sufficient in the sense of being of a certain value in itself) and *poiēsis* (a “making” – an action that is intended to produce something outside itself, a “work”). “Maturana found a bridge between the two concepts,” Luhmann writes. “He spoke of *autopoiesis*, a poiesis that is its own work [. . .] the system that is its own work” (Luhmann 2013, 77-8). There is an irony here. For Maturana would come to contest Luhmann's application of the concept of autopoiesis to social or communicative systems. Yet *poiēsis* is the title of Aristotle's treatise on the “making” of works of art (especially dramatic tragedy), and throughout that work he repeatedly has recourse to the analogy between, on the one hand, the way that works of art like tragedies are constructed and, on the other, the way that organic forms are constructed.

In this paper, I pursue this question of how narrative fiction can be thought of in autopoietic terms. This is not an approach that has yet made much impact in narrative theory, though Luhmann (2000) has written at length on autopoiesis and the “art system” and Bruce Clarke (2014) on the post-humanist ideological implications of thinking about narrative in systems-theoretical ways. My intentions in relation to this new field, then, are modest and exploratory. I draw on three

principal sources, and identify three themes that, I suggest, should be central to a worked-through theory of autopoiesis and narrative.¹ Two of the sources I have already mentioned – firstly Aristotle’s *Poetics*, his defence (against the attacks of his former teacher Plato) of the cognitive and ethical value of the arts; and secondly, Luhmann’s account of art as a special instance of an autopoietic “social” or “communicative” system. The third source is the writings on aesthetics of the Czech semiotician and literary scholar Jan Mukařovský. Mukařovský was writing in the 1930s and -40s in the wake of the emergence, in the linguistics of Saussure and in Russian Formalism, of perhaps the first modern ideas of “system” in relation to language and literature.² Yet the “Czech structuralism” of which he was a prominent representative took a view of “system” quite different from that which had been presented by Saussure (and which would be pursued by structuralism of the French school in the nineteen-sixties). One of my concerns will be to show how Luhmann’s concepts of operative closure and autopoiesis in relation to artworks are foreshadowed both by Mukařovský’s concept of the “contexture” created by the “aesthetic function” and by Aristotle’s account of the internal organization of an artwork or “mimetic representation”. In all three cases, it will be noted, narrative is understood in the context of a general aesthetic theory. Yet for all three, as we shall see, narrative constitutes, on account of its explicitly temporal and constructional quality, a paradigmatic case.

¹ I am writing here about narrative fiction – that is, narratives that distinguish themselves as “made” in the sense of “made up”: they involve artistry and constitute works of “art”. This raises the question of the use of narrative forms in non-artistic and non-fictional contexts. There is not space in this paper to address this question directly, but I take it that it could be handled in terms of the poly-functionalist view of language set out in Section 2 of this paper.

² Luhmann acknowledges Saussure as a source for his “difference-theoretical” approach to systems – that is, the notion that the operations of social systems are based (like Saussure’s *langue*, or language-system) on *difference* (Luhmann 2013, 44-5).

The connections between these three disparate sources coalesce around the three ideas that I suggest should be central to a theory of narrative and autopoiesis. The first is *closure* – or, to use terms that I will explain below, the “operative closure” by which a system distinguishes itself, through its own internal operations, from its environment. (Here, as far as Aristotle is concerned, I will be concerned in particular with the extrapolations from the *Poetics* of two neo-Aristotelian narrative theorists, Paul Ricoeur and Meir Sternberg.) From my treatment of this first idea emerge the key issues of perception and recursion. The second section, on *observation*, takes up these themes in relation to function and what Luhmann terms “second-order” observation. The final section, on *coupling*, considers the constraints that interacting autopoietic systems impose on one another, and how this process should be understood in relation to narrative. Here I contrast the views of Aristotle and Mukařovský, which are rooted in the notion of the unified subject, with that of, Luhmann, according to which the productive mutual constraints at work in narrative are those, not between subject and object (e.g. reader and text), but between autopoietic systems of perception and communication.

1) Closure

Tragedy, Aristotle writes, is “an imitation [*mimēsis*] of an action that is complete in itself, as a whole of some magnitude”:

Now a whole is that which has beginning, middle, and end. A beginning is that which is not necessarily after anything else, and which has naturally something else after it; a middle is that which is by nature after one thing and has also another after it; and an end is that which is naturally after something itself, either as its necessary or usual consequent, and with nothing else after it. (Aristotle 1941, 1462 [1450b])

Aristotle is using “action” in a particular sense here. There is a general sense of an action as seen from the point of view of an agent – that is the things s/he does, the

actions that s/he performs. And there is the sense of an “action” as seen from a broader, external perspective (such as that of an audience in a theatre), which encompasses origins and consequences of which the agent may be unaware. It is the latter sense that Aristotle is using when he refers to “an action that is complete in itself” (Rorty 1992a, 7-8). Tragedy represents this unity of an action (in this strong sense) through its *muthos*, which Aristotle defines as its “organization of events” (*ē tōn pragmatōn sustasis*) – or, as Paul Ricoeur parses the term *sustasis* in his commentary on Aristotle’s *Poetics*, its “organizing the events into a system” (Ricoeur 1984, 33). In Aristotle’s account, a well-constructed “complex plot” (Sophocles’ *Oedipus* is his favoured example) crucially includes elements of “discovery” and “reversal of fortune” for the protagonist: these elements hinge on the disparity between the two senses of action – on the one hand, discrete actions from the perspective of the agent, and, on the other, “whole” actions from a point of view taking in origins and consequences.

Paul Ricoeur (1984) and Meir Sternberg (1992) have drawn from Aristotle parallel conclusions concerning the temporality of narrative. Both have highlighted how Aristotle’s concept of discrete events making up a single temporal whole, the representation of a “single action” (in the strong sense), implies a simultaneity of two different ways of experiencing the narrative – one “chronological” or “episodic”, the other “teleological” or “configurational”. The chrono-logic of succession drives forward from beginning to end, while the “grasping together” of teleo-logic looks back from the end to the beginning (Ricoeur 1984, 66-8). Sternberg highlights how the differentiation and phasing of these two streams produces such narrative effects as curiosity, suspense and surprise (Sternberg 1992, 474-79). The important point here about the reinterpretations of Aristotle by Ricoeur and Sternberg is that they

share an insistence that the unity or closure of narrative cannot be conceived purely in (mono)linear terms, in terms of the beginning- and end-points of a single line. The non-linear differentiation outlined above, whereby actions are seen simultaneously as causes of effects and as functions of a whole that is oriented towards the perceiver, creates what one might term a bi- or multi-linearity in the perception of narrative.

For Jan Mukařovský, the key term for the temporal whole of narrative is “contexture”. In line with the neo-Aristotelianism of Ricoeur and Sternberg, he characterizes contexture in dynamic and constructional terms, as “a sequence of semantic units (e.g., words, sentences), a sequence unalterable without a change in the whole, in which the meaning accumulates successively” (Mukařovský 1977 [1945], 73). And we find, too, the same differentiation between two phases – a phase of linear succession and a phase of retrospective configuration from the point of view of a projected or achieved endpoint. A narrative presents itself as a succession, but simultaneously “the semantic intention tending toward the wholeness of the contexture accompanies its perception from the first word” (74).

Mukařovský’s distinctive contribution to this discussion of narrative’s closure lies in the way his focus on function clarifies two points that we see emerge from Ricoeur’s and Sternberg’s accounts: the gearing of the temporal whole to the *perception* of the reader/audience, and the generation of a recursive, non-linear structure whereby textual elements are seen simultaneously according to different functions. In order to appreciate this contribution, it is necessary to give a brief account of his poly-functionalist semiotics.³ Mukařovský constructs a typology of linguistic functions on the basis of two distinctions. The first is a distinction between,

³ Mukařovský was influenced by the functionalist semiotics of Karl Bühler (1990 [1934]): I will discuss the significance of this influence in the following section.

on the one hand, uses of the sign that are directed immediately at reality, and, on the other hand, uses of the sign that take the mediating role of the sign as itself the object of the sign. The former uses are either “practical” functions, which directly interact with reality (an instruction, for example, or an expressive cry of pain or alarm), or “theoretical” functions, which aim to represent reality in the mind (scientific language being a prime example). The latter uses – those which take the mediating role of the sign as their object – are either “symbolic” functions, which have as their object the association or mediation between the sign and reality (Mukařovský gives the example of a national flag), or “aesthetic” functions, which take as their object the mediation between the sign and the perceiving subject. The second distinction, which forms the basis of the sub-categories listed above, is a distinction as to whether the language is oriented towards the subject or the object. Thus the practical function is oriented towards its object (reality) in the sense that here the language interacts directly with reality, seeking to change or express it, whereas in the case of the theoretical function the language is oriented towards the subject in that it is aimed not at changing or directly expressing reality but at constructing an image of reality in the mind of the subject. The “symbolic” function is said to be oriented towards the object because the mediation at stake is that between sign and object, whereas in the case of the “aesthetic” the mediation that forms the object of the sign is, as we have said, that between sign and perceiving subject. Mukařovský combines these distinctions to form this matrix of basic functional possibilities (Mukařovský 1977 [1942], 39-45; Steiner 1977, xxvii-xxix):

	Immediate (Sign as “instrument”)	Semiotic/mediated (Sign as “object”)
Orientation to Subject	Theoretical	Aesthetic
Orientation to Object	Practical	Symbolic

These possibilities and interrelations should be seen in terms of a simultaneous poly-functionality: “As a rule, several functions are not only potentially but actually present in an act or creation, and among them there may be some which the agent or creator did not think of or did not even desire. No sphere of human action or human creation is limited to a single function. There is always a greater number of functions, and there are tensions, variances, and balancing among them” (Mukařovský 1977 [1942], 37). An innumerable variety of hierarchical interrelations between these functions is possible – in advertising, for example, one finds a subordination of the aesthetic function to practical functions (32). A fictional narrative will contain language used for many different functions, belonging to any of the practical, theoretical and symbolic (or indeed aesthetic) categories set out above: but these functions will themselves be the object of the overarching aesthetic function.

Thus the aesthetic function, for Mukařovský, involves an orientation with two aspects. It is an orientation towards the sign itself – that is, in a work of art, towards the *whole* of the work of art as a sign – but more specifically, it is an orientation towards the subject’s response or attitude towards the sign (a response that is in principle open-ended rather than determined by a particular relation to reality). One might take as an example Jasper Johns’ famous Pop Art painting *Stars and Stripes*.

Mukařovský, as we have seen, cites a national flag as being a prime example of the symbolic function: it is geared to the identification of the sign with a particular portion of reality (the country, the nation, the people).⁴ In Johns' painting, this symbolic function is not erased: rather, this function becomes itself a sign that is the object of the aesthetic function, thus orienting it towards the open-ended, indeterminate response of the perceiver. In general, according to Mukařovský, when the aesthetic function is dominant – that is, in an artistic work such as a fictional narrative – subordinate functions will tend to proliferate: the aesthetic function is characterized “by the fact that it adds a facet to the acting individual's functional diversity in some way” (Mukařovský 1977 [1942], 38). These two aspects of the aesthetic function lead to a seemingly paradoxical situation whereby the work of art is oriented both towards maximal closure and unity (because all the functions are oriented towards the *whole* of the work of art as a sign) and simultaneously towards maximal internal differentiation and diversification (because the orientation is simultaneously towards the *whole* of the subject's existence).⁵

This relation between perception, recursion and closure is central to Luhmann's concept of “form”. Luhmann's systems theory is based on a “differential or difference theoretical approach” that draws on British mathematician George Spencer Brown's calculus of distinctions, presented in his book *The Laws of Form* (Spencer Brown 1969). Spencer Brown begins with an injunction: “Draw a distinction!” (In the context of the preceding discussion of poly-functionality, one might take the example of a distinction between two linguistics functions.) On the

⁴ This identification can be seen in the idea that an insult to the one is an insult to the other – hence laws against “desecrating” the flag in, for example, the United States.

⁵ Mukařovský's argument that the aesthetic function tends to generate poly-functionality can be compared to Meir Sternberg's “Proteus Principle” concerning narrative – the idea that narrative is characterised by a many-to-many correlation between form and function (see Pianzola, this volume).

“unmarked space” of the blank sheet of paper, he marks the distinction with the following form (Spencer Brown 1969, 4):



This form is a unity that is, paradoxically, also a difference – the difference between the distinction proper (the vertical line), which has two sides, and the indication of the distinction (the horizontal line), which marks only one side of the distinction. The indication of a distinction is internal to the distinction and marks only one side of a two-sided form: every distinction has an “unmarked” space that is the choice of *this* (as opposed to any other) distinction: “When handling a distinction, you always have a blind spot or something invisible behind your back. You cannot observe yourself as the one who handles the distinction. Rather you must make yourself invisible if you want to observe” (Luhmann 2013, 104).⁶

Luhmann follows Spencer Brown in using the term “form” for the boundary articulated by a distinction. A form is asymmetrical because, although it has two sides, at any one time only one of the sides is indicated. Thus a system distinguishes itself from its environment through its internal operations. An artwork is such a form, for it strives towards just such a “double-closure”: “A work of art must distinguish itself externally from other objects and events, or it will lose itself in the world. Internally, the work closes itself off by limiting further possibilities with each of its formal decisions” (Luhmann 2000, 29). Narrative is exemplary in this respect:

⁶ A different formulation of the same point, from a phenomenological perspective, can be found in Mikhail Bakhtin’s essay “Author and Hero in Aesthetic Activity”, where he describes the asymmetric relation between a self that is the unique origin of a subjectivity and a self that presents itself as an object to that subjectivity: there will always be an “excess” of the one over the other, whereby the “horizon” of the subjectivity exceeds that of the self that it encompasses as object (Bakhtin 1990 [1920-23], 22-23).

“A narration, opens with the phrase ‘once upon a time . . . ,’ which demarcates an imaginary space for the unfolding of the narration at the exclusion of everything else” (Luhmann 2000, 32). Taken as whole, “the sequence of operations closes itself off and in doing so excludes other things” (33). Luhmann invokes in this context the same term, “contexture”, employed by Mukařovský: “Every choice of contexture generates a surrounding space, the unmarked space of Spencer Brown’s formal calculus” (Luhmann 2000, 33).

In drawing a boundary, as we have indicated, the sequence of operations limits itself to internal operations. These internal operations that articulate a form are recursive, since any crossing into the unmarked space of a distinction presupposes the original distinction: the form, in Spencer Brown’s formulation, “reenters” the form (Luhmann 2000, 139). In terms of narrative, such recursion guarantees connectivity within the narrative and justifies describing the narrative as a form of autopoiesis, in that

the elements of the system are produced within the network of the system’s elements, that is, through recursions. A communication cannot occur as an isolated phenomenon, as a singular event brought about by a combination of physical, chemical, living, and psychic causes. Nor can it proceed through simple replication, merely by substituting disappearing elements for one another. (Luhmann 2000, 49)⁷

Thus Luhmann’s difference-theoretical approach clarifies at a high level of abstraction how the sequential series of successive “distinctions” of which the narrative is composed is simultaneously a recursive unfolding of that which is given

⁷ In narrative fiction, Luhmann’s stricture concerning the “isolated phenomenon” or “singular event” can be applied even to those features that Roland Barthes (1989) groups together under the term “reality effect” – that is, “realistic” details or specifications that are deliberately inconsequential to the plot or theme: here, as Barthes points out, the apparently “singular event” authenticates the “realism” (the “referential illusion”) of the narrative considered as a totality, as a singular, whole aesthetic sign: these details “say nothing but this: *we are the real*; it is the category of ‘the real’ (and not its contingent contents) which is then signified” (Barthes 1989, 148).

at the beginning – provided, that is, that one understands that “given” in terms of the initiating articulation of a form (in Mukařovský’s terms, an orientation of the sign to the whole of the aesthetic sign of which it is an element).

It also helps to clarify the linkage between this recursive dynamic, on the one hand, and, on the other hand, the polyfunctionality that Mukařovský points to as the basis of narrative’s non-linear dimension. “A function,” as Luhmann writes, “is nothing other than a focus for comparison. It marks a problem [. . .] in such a way that multiple solutions can be compared and that the problem remains open for further selections and substitutions” (Luhmann 2000, 138). Functions are also available, as we have seen in our earlier discussion of Mukařovský, for recursive operations. In a narrative, an action or use of language that serves one particular function can simultaneously serve (or can subsequently come to be seen to simultaneously serve) a quite different function. On the other hand, functionality emerges from what Luhmann calls “second-order observation”:

Unlike purpose, function does not serve the orientation of first-order observers – of the actor himself, his advisors, or his critics. An operation needs no knowledge of its function; it can substitute a purpose [. . .]

Thus the consideration of functionality raises the issue of observation (including that of what Luhmann means here by “second-order observation”). It is to this issue that I now turn.

2) Observation

The function of art in the modern world, according to Luhmann, is to bring to consciousness the interaction of perception and communication: in non-artistic contexts “communication captivates perception and thereby directs awareness”, whereas “[a]rt seeks a different kind of relationship between perception and

communication – one that is irritating and defies normality – *and just this is communicated*” (Luhmann 2000, 23). Art deals in meanings (including linguistic meaning), but it is also something that is perceived, a “quasi-object” whose operative closure (as we have seen in the previous section) distinguishes it from everything else in the world. Above all, art is a prime example of a “second-order” observation system – a system constituted not just by “first-order” operations of observation and distinction-making (as outlined in the previous section), but also by second-order “observations of observations”.

Before turning to Luhmann’s account of art as a second-order observation system – and its particular application to narrative – I will draw out how versions of its basic conceptual linkage between perception and communication can be found, too, both in Aristotle and in Mukařovský’s concept of the aesthetic function. In Aristotle, the key term is *mimēsis*.⁸ Aristotle’s concept of *mimēsis* should be distinguished, in the first place, from the Platonic idea that a representation is a degenerate third-hand copy (coming after the object it represents, which itself comes after the Ideal Form of which the object is a partial realization). Aristotle comes at the question of representation, by contrast, from the point of view of human development. Mimetic representation, for Aristotle, is natural to children and is one of the primary features that distinguishes humans from animals: it both increases the scope for learning and is inherently pleasurable (Aristotle 1941, 1456 [1448a]). Although it is a form of iconicity, an imitative relation whereby a similarity is perceived between the representation and what it represents, Aristotle gives *mimēsis*

⁸ *Mimēsis* is often given in English as “imitation”, which has somewhat belittling connotations that don’t do justice to the key role that he saw it playing in human cognition and development. Here I follow Stephen Halliwell (1986) in preferring the term “mimetic representation”, in which an iconic or imitative aspect is understood.

a surprisingly wide scope, taking in not just visual art and drama, but also dance and even music. Written narrative is also a mimetic representation, and not just at those points where the author (through “direct speech”) “impersonates” or “takes on” the voice of characters: the narrative as a whole is also a mimetic representation in that in narrating the author is “taking on” the voice a fictive narrator. Aryeh Kosman’s commentary on the *Poetics* provides a useful gloss on this point:

A poet [. . .] is not primarily a creator of things that imitate: it is the poet himself who is an imitator in that she makes imitation things. It is not, in other words, that the poet is an imitator because she creates a piece of discourse that imitates a non-discursive reality; she is an imitator because she imitates a speaker speaking about reality, though it is not her reality, but the reality of that fictional speaker’s fictional world. It is this relation between the poet and the speaker that is the primary imitative relation. The poet creates an imitation speaker who makes real speeches in the imitative world, ‘imaginary gardens with real toads in them’ as Marianna Moore once put it, not imaginary toads in gardens that are real. (Kosman 1992, 57)

Mimetic representation, then is an imitative *action* by the author, and its reception by the audience is similarly constructional.

An artistic representation, according to Aristotle, has the sensible qualities of an ordinary object, but *qua* representation these qualities take on for the perceiver an additional function in that they are perceived also in terms of their relation to the object represented: it is through contemplation of this extra dimension, Aristotle argues, that we are able to take pleasure in representations of objects distasteful in themselves, such as a painting of a corpse (Aristotle 1941, 1457 [1448b]). In her commentary on the *Poetics*, Elizabeth Belfiore provides the following gloss on *theōria* or “contemplation”, the term that Aristotle employs for the perception of the mimetic, representational object:

by means of *theōria* we learn and reason about a representational relationship between the imitation and the object imitated. *Theōria* is nonpractical. *Theōria* alone, Aristotle writes in *Nicomachean Ethics* 10.1177b 1-4, “is loved for itself. For nothing results from it except contemplating, but from practical

things we acquire something, to a greater or lesser degree, in addition to the action.” (Belfiore 1992, 67)

Aristotle works out this relation to the experience of the contemplator in terms of his notion of the “cathartic” response: I will return to catharsis in the following section, where I consider the role of constraint.

As we saw in the previous section, Mukařovský conceives the “aesthetic function” as focussed on the open-ended perception by the reader of the sign’s contexture. But there is another level at which Mukařovský’s functionalism integrates perception and communication, which can be seen if we draw out its indebtedness to Karl Bühler’s instrumentalist theory of language (1990 [1934]). Bühler’s starting-point is the close interconnection between language and perception: language, according to this view, is a *mediation*, something *through* which things are revealed, or *by means of which* (as an *instrument* or *tool*) people are guided to look at them.⁹ His schema of linguistic communication presents what psychologists today would call the “joint-attentional situation” (Tomasello 1999; Eilan et al 2005):

⁹ Bühler points out that the etymology of common Indo-European words for “sign” (e.g. *Zeichen* (sign), σῆμα (sign), δειξίς (pointing), *signum* etc) characteristically refers to “a showing (or a revealing) of things to the viewer, or the other way round, leading the viewer (the viewing gaze) to the things” (Bühler 1990 [1934], 44).

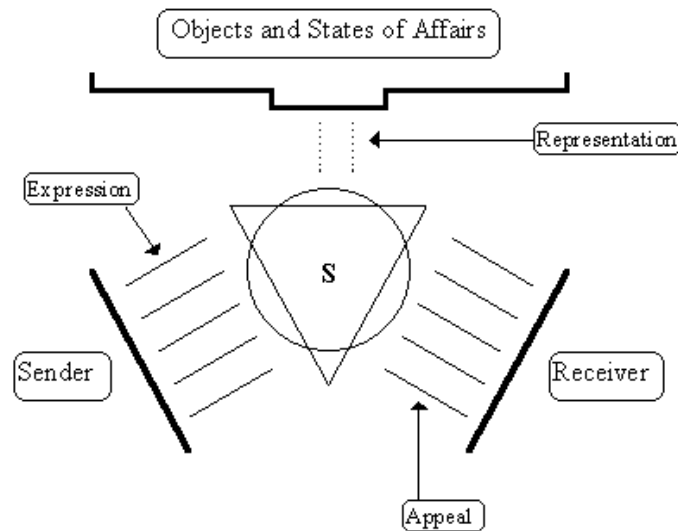


Figure 1 (Bühler 1990 [1934], 35)

The sign (indicated by the circle S) encompasses three facets or “semantic functions”, depending on the pole of the triad to which it is oriented. Particular instances of language-use are “phenomena of dominance, in which one of the three fundamental relationships of the language sounds is in the foreground” (39). To this schema Mukařovský’s aesthetic function adds another phenomenological layer: the perception inherent in the (joint attentional) sign itself becomes an object of perception, since everything, under the aesthetic function, is referred back to the perception of the viewer or artist. In narrative, for example, the perception of the manifold different ways in which language can be used – its various simultaneous possible functions – itself becomes, by a recursive operation, the object of perception.

Once again, Luhmann’s difference-theoretical account of communicative systems – and in particular, his concept of second-order observation – helps clarify the recursion at stake here. For Luhmann, as we saw in the previous section, the act of observing involves making a distinction of which only one side, the “marked” side, is visible in indicating the distinction. There remains an “unmarked space” – that is,

the space from which the observer makes the distinction. “At the same time,” Luhmann continues, “the observer – in drawing a distinction – makes himself visible to others. He betrays his presence – even if a further distinction is required to distinguish him” (Luhmann 2000, 54). In second-order observation, where one “observes an observer”, one “pays attention to how they observe” (Luhmann 2013, 111) and in doing so, in distinguishing the distinction they are making, one reveals the unmarked space of the original distinction: “Second-order observation is observation of an observer with a view to that which he cannot see” (Luhmann 2013, 112). At the same time, a second-order observation is also a first-order observation, it is not a free-floating, God-like omniscience: “the second-order observer remains anchored in the world (and accordingly observable). And he sees only what he can distinguish” (Luhmann 2000, 56).

But it is a mistake, according to Luhmann, to think of observation merely in terms of “subjects”. From a difference-theoretical perspective, observation is an operation that is carried out by a communication in making a distinction: “One speaks about something specific and thematizes what one is speaking about. Thus, one uses a distinction; one speaks about *this* and nothing else” (Luhmann 2000, 105). Modern societies, according to Luhmann, have developed, through their increasing functional differentiation and complexity, “communicative systems” that are based on this kind of second-order observation. The “art system” is only one example of such systems: other examples he cites includes the law, science, education and politics (Luhmann 2000, 63-5; Luhmann 2013, 115-16). To elaborate on just one of these examples: scientists carry out first-order observations in their laboratories, but the autopoiesis of the scientific system occurs at the level of second-order observation, when these first-order observations, mediated by publication in

peer-reviewed journals, are subjected to the scrutiny of other scientists, who are now able to observe the mode of observation of the original scientists (Luhmann 2000, 63).

What distinguishes the art system from these other second-order systems is that it produces perceptible objects or events marked by the kind of operative closure outlined in the previous section. The distinct boundary, the form, marked out in each of the recursive operations by which the artwork is constructed, presents an object for the joint attention of artist and perceivers: the art system in general has developed “the specialised function of orchestrating second-order observations” (67) in the form of perceptible events/objects. In narrative fiction the observation of observation is particularly explicit and thematised – for in this case, as I shall explore further in the final section, the reader is constantly invited to observe the mimetic representation of narrators and characters. “Narratives,” as Bruce Clarke writes, “beckon us to reconstruct their virtual structures as the actual traces of other observers, to experience those narrations as observing systems and not just as sequential semiotic structures” (Clarke 2014, 96).

3) Coupling

My starting-point was that Aristotle’s *Poetics* is about *poiēsis* – making. It is framed as a practical guide to making tragedy (and, as a subsidiary topic, epic – a second part of the treatise, on comedy, was lost). A large part of the book is concerned with practical, prescriptive advice on the construction of the tragic plot (*muthos*), which Aristotle regards as the most important aspect of making a tragedy. The definition of tragedy which Aristotle gives near the beginning is highly specific:

A tragedy [. .] is the imitation [*mimēsis*] of an action that is serious and also, as having magnitude, complete in itself; in language with pleasurable accessories, each kind brought in separately in the parts of the work; in a dramatic, not in a narrative form; with incidents arousing pity and fear, wherewith to accomplish its catharsis of such emotions. (Aristotle 1941, 1460 [1449b])

Thus tragedy, for Aristotle, has an end or purpose that is located in the reaction of the audience – it is the function of tragedy to produce that particular interaction with the audience. And “catharsis” is not merely an emotional spasm, a response to a stimulus, but a process with important cognitive and ethical dimensions.¹⁰ Amélie Rorty identifies three sources for Aristotle’s use of the term: a medical usage, referring to a therapeutic cleansing or purgation; a religious usage, referring to the ritualized expression of dangerous emotions; and its use as “a cognitive term referring to an intellectual resolution or clarification that involves directing emotions to their appropriate intentional objects” (Rorty 1992, 14). She goes on to put forward a modern analogy in terms of the psychotherapeutic notion of “working through”:

Like a therapeutic *working through*, catharsis occurs at the experienced sense of closure. In recognizing and re-cognizing the real directions of their attitudes, the members of an audience are able to feel them appropriately; and by experiencing them in their clarified and purified forms, in a ritually defined and bounded setting, they are able to experience, however briefly, the kind of psychological functioning, the balance and harmony that self-knowledge can bring to action. (Rorty 1992, 15)

The role of the Aristotelian audience is thus an enactive one in which the audience brings to the encounter with the mimetic representation emotional responses which have cognitive dimensions and which are also expressions of ethical or social

¹⁰ “Aristotle conceives of the tragic emotions not as overwhelming waves of feeling, but as part of an integrated response to the structured material of poetic drama: the framework for the experience of these emotions is nothing other than the cognitive understanding of the mimetic representation of human action and character” (Halliwell 1986, 173-74). The “Poetics” should be read in the context of Aristotle’s wider views about the positive role played by the emotions in cognition (Belfiore 1992, 181-225).

norms.¹¹ It is the function of tragedy to fulfil the end or *telos* of this particular interaction, which lies at the juncture of, on the one hand, the tragedy's *poiēsis*, its design and crafting, and, on the other hand, the normative emotional response of the audience.

The relationship between *poiēsis* and catharsis is thus one of mutual constraint: the tragedian is constrained by the end of catharsis to adopt a particular approach to plot-construction, and the audience, as we have seen, is constrained by the *poiēsis* of the mimetic representation to make particular actions and events the object of its emotional response. Both sides of the interaction are systems. On the *poiēsis* side, running through Aristotle's account of the construction of tragedy is an analogy with the way different parts and functions are co-ordinated towards a unified end in a living organism (Belfiore 1992, 56-7). The key term here is *sustasis*, variously translated as "structure", "organization" or "system".¹² On the other side, too – the side of the audience as opposed to the mimetic representation – we find, rather than a unitary, elemental response, a complex interaction of cognitive, emotional and normative aspects.

From the perspective of twentieth-century views on art, what is striking about Aristotle's *Poetics*, what makes it distinctly "classical" in its outlook, is its insistence on a single norm guiding the work. Jan Mukařovský's essay "The Aesthetic Norm" (1937) gives us, by contrast, a characteristically modern, pluralistic picture. In the art

¹¹ Elizabeth Belfiore has drawn attention, in particular, to the role of the notion of *philia* – roughly "kinship", though extending to other relationships of mutual obligation and respect (Belfiore 1992, 70-81): "*Philia* is of primary importance in Aristotle's theory of tragedy. Because the individual parts of the plot and the plot structure as a whole involve *philia*, it determines in large part the emotional response of the audience" (70).

¹² One of the key benefits, for Aristotle, of mimetic representations is that experience of their *sustasis* helps us better appreciate the systems and structures found in the natural world and in ourselves (Belfiore 1992, 68-70). As Belfiore summarises Aristotle's perspective: "We understand systematically, and this know ourselves, through contemplation of the natural 'systems' (or 'structures': *sustēmata*, *sustaseis*) in nature that are imitated in craft products" (69-70).

of any period, he writes, “we can always distinguish the simultaneous activity of several different systems of norms” (Mukařovský 1937, 51). Furthermore, in a single work a “complex tangle of norms” may contend for attention, some positively endorsed, others making their presence felt in a “negative” way, through their deliberate and conspicuous violation (52) Yet this important difference – attributable, in Luhmann’s terms, to the autopoietic internal differentiation of the modern “art system” – should not blind us to the commonalities between, on the one hand, Mukařovský’s view of the relationship between norm, function and system, and, on the other hand, that of Aristotle. For Mukařovský, the significance of a norm is that it implements the “realization” of a function (one might say, in the terms we used in the previous section, that it “observes” the function). This realization of the function is characterized in Aristotelian, teleological terms, and also in terms of its operating as a constraint:

Because such a realization [of the function] presupposes an activity tending towards a specific goal, we must admit that the limitation by which this activity is organized has in itself the character of energy as well. (Mukařovský 1937, 49)

A norm is a limitation, a constraint, that provides “energy” for the realization of functions – it is a “regulating energetic principle” (49). It is to be distinguished from a rule, in that it may resist codification: the limitations it imposes may not be expressible in words (49-50).

In Aristotle and Mukařovský, then, we find, in embryo, the notion of a non-causal relationship of mutual constraint between systems. But the systems here are seen in terms of the traditional opposition of subject and object (the audience/reader on one side, the artwork (e.g. the fictional narrative) on the other), either in the form of Aristotelian catharsis and *poiēsis*, or, as we saw above, of Mukařovský’s interface,

set into operation by the “aesthetic function”, between the “whole” of the aesthetic sign and the “whole” of the subject’s existence. Luhmann goes beyond this by supplanting the subject/object dichotomy with the “structural coupling” of perception and communication.

Luhmann adapts the notion of “structural coupling” between systems from Humberto Maturana (Luhmann 2013, 84-5). Coupling involves a reduction of complexity, since it is highly selective with regard to the environment of the system (85). The brain, for example, is coupled with the external environment via the “narrow bandwidth” of the sense organs, especially eye and ear (86). Particularly important and productive for human beings are the constraints generated by the coupling of consciousness and communication, both of which are autopoietic systems, but which only occur in the form of this structural coupling (86). (In this case, Luhmann suggests, the original coupling mechanism – the “narrow bandwidth” that constrains both sides – is language (87).) The artwork serves the specific function of systematically coupling consciousness (perception) and communication (“psychic and social systems”):

Art makes perception available for communication, and it does so outside the standardized forms of a language (that, for its part, is perceptible). Art cannot overcome the separation between psychic and social systems. Both types of system remain operatively inaccessible to each other. *And this accounts for the significance of art.* Art integrates perception and communication without merging or confusing their respective operations. Integration means nothing more than that disparate systems operate simultaneously and constrain one another’s freedom. (Luhmann 2000, 48)

Art, Luhmann writes, “makes perception available for communication”, but he could as well have written “makes communication available for perception”. In Section 2 I outlined how, for Aristotle, mimetic representation makes a communication (language, for example) available for perception as an observable and reproducible

event or object (language becomes a narration). Another way putting this is that among the objects we can perceive are (communicative) signs. But at the same time, those signs stand for objects (Marianne Moore's "real toads in an imaginary garden"), so that (as we saw with Bühler's joint attentional approach to language) communication and perception are tightly coupled at this level too. We have entered the realm of recursive second-order observation, the observation of observation, where the "form re-enters the form". It is in this sense, that, as we have said, Luhmann, in his formulation, could have entered the cycle of perception and communication at any point.¹³

It is through this process of mutual constraint as between perceptual and communicative systems (superseding the subject/object dichotomy) that "communication through art tends towards system formation and eventually differentiates a social system of art" (Luhmann 2000, 49). Our concern here is how this model can be seen to manifest itself in narrative fiction. Elsewhere (Lively 2014, 36-111) I have explored how the development of narrative fiction can be described in terms of the affordances it offers (especially with the transitions to written and printed forms) for a process of recursive embedding, whereby signs standing for joint attentional communication themselves become the objects of joint attention. In medieval tale collections (*Scheherazade*, Boccaccio's *Decameron*, Chaucer's *Canterbury Tales*), for example, the narrator is personified and observed (70-83). In Cervantes' *Don Quixote*, narrators and characters become nodes in a labyrinthine network of recursive joint attentional perspectives (84-99). In the late nineteenth- and twentieth-century use of Free Indirect Discourse we find the development of an

¹³ This is not to imply that there is a stable "symmetry" to the coupling of perception and communication in art: indeed there may be a "runaway" gearing towards perception in the art system – hence modern art in which the demands of perception test the limits of communication (Umberto Eco's "open work" – e.g. James Joyce's *Finnegan's Wake*) (Luhmann 2000, 77).

oscillatory cycle of perception and communication (utterance) to evoke, at the level of discourse itself, the phenomenology of experience (Lively 2014, 238-53). All these cases can be seen as recursive, autopoietic elaborations (“ornaments”, to use a term of Luhmann’s (2000, 120)) of that original moment of mimetic representation when the actor playing Oedipus stood before his audience and spoke his line – when communication was perceived and perception communicated.

Conclusion

This paper has outlined three themes that I take to be central to any autopoietic approach to narrative. In Section 1 I discussed narrative as a form of communication that, through its own internal operations, closes itself off in order to present itself as an object (a mimetic representation, in Aristotle’s terms) for perception. In Section 2 I outlined how operations that produce this closure take the form of recursive observations of observations (or observations of observations of observations etc) whereby, as Mukařovský’s concept of “contexture” clarifies, the narrative constitutes what one might think of as a continuously morphing but closed “state space” of potential and actualized functions. According to this perspective, actualization of functions (any particular path through the state space, if you will) will depend, in Luhmann’s terms, on the constraints of an observing system such as a reader. But this coupling itself is dependent (it is impossible to say which comes “first”) on the coupling whereby the narrative makes itself available simultaneously as communication and object of perception: it is this constraint that has been particularly productive in the development of narrative fiction, and that has determined narrative fiction’s particular fulfilment of Luhmann’s stipulation that “a work qualifies as art only when *it employs constraints for the sake of increasing the*

work's freedom in disposing over further constraints" (Luhmann 2000, 35; emphasis in the original).

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